1. (c)
2. (b)
3. (c)
4. (a)
5. (b)
6. (a) (d)
7. (b) (c)
8. (a) (c)
9. (a) (b)
10. **ADJUSTED R-SQUARE**
    The adjusted R-squared compensates for the addition of variables and only increases if the new predictor enhances the model above what would be obtained by probability. Conversely, it will decrease when a predictor improves the model less than what is predicted by chance.
11. **RIDGE AND LASSO REGRESSION**
    Similar to the lasso regression (L1 Regularization), ridge regression puts a similar constraint on the coefficients by introducing a penalty factor. However, while lasso regression takes the magnitude of the coefficients, ridge regression takes the square. Ridge regression is also referred to as L2 Regularization.
12. **VIF**
    A variance inflation factor (VIF) is a measure of the amount of multicollinearity in regression analysis. Multicollinearity exists when there is a correlation between multiple independent variables in a multiple regression model. This can adversely affect the regression results.
    Most research papers consider a VIF (Variance Inflation Factor) > 10 as an indicator of multicollinearity, but some choose a more conservative threshold of 5 or even 2.5.
13. **SCALING THE DATA**
    To ensure that the gradient descent moves smoothly towards the minima and that the steps for gradient descent are updated at the same rate for all the features, we scale the data before feeding it to the model.
14. **DIFFERENT METRICS**
    The different metrics which are used to check the goodness of fit in linear regression
    - R – Square or Adjusted R Square
    - Mean Square Error (MSE) or Root Mean Square Error (RSME)
    - Mean Absolute Error (MAE)
15. **CONFUSION MATRIX**
    TP = 1000
    FP = 50
    FN = 250
    TN = 1200

    SENSITIVITY = TP / (TP + FN)

    = 1000 / (1000+250)

    = 0.8

    SPECIFICITY = TN / (TN + FP)

    = 1200 / (1200+50)

    = 0.96

PRECISION = (TP / TP +FP)

= (1000) / (1000+50)

= 0.9523

ACCURACY = (TP + TN) / (TP + TN + FP + FN)

= (1000+1200) / (1000+50+250+1200)

= 0.88